

REMARKS

This is a full and timely response to the final Official Action mailed December 3, 1999 (Paper No. 11). Reexamination and reconsideration in light of the above amendments and the following remarks are courteously requested.

By the forgoing amendment, the claims have been amended in accordance with the indications of allowable subject matter made by the Examiner. No claims are added or cancelled. Thus, claims 1 and 4 to 36 are currently pending for the Examiner's consideration.

In the outstanding Office Action, the Examiner indicated that claims 6, 8, 11, 12, 17, 19, 22, 29, 31 and 34 contain allowable subject matter and would be allowed if rewritten as independent claims. Applicant wishes to thank the Examiner for this indication of allowable subject matter. Consequently, each of these claims has been rewritten as an independent claim in the foregoing amendments. Therefore, following entry of this amendment, these claims will be in condition for allowance as determined by the Examiner.

With regard to the remaining claims, the Examiner rejected the independent claims 1, 14 and 25 as anticipated under 35 U.S.C. § 102(b) by any one of four references, Umeda et al. ("Umeda"); Seppanen; Wiwakanond et al. ("Wiwakanond") and

Corbett et al. ("Corbett"). Most of the dependent claims, claims 4, 5, 7, 9, 10, 13, 15, 16, 18, 20, 21, 23, 24, 26 to 28, 30, 32, 33, 35 and 36 were rejected as unpatentable under 35 U.S.C. § 103(a) based on the same four prior art references. For at least the following reasons, these rejections are respectfully traversed.

Claim 1, as amended herein, recites a system for controlling a manufacturing production line using a virtual kanban system and a manufacturing execution system comprising:

said manufacturing execution system for automatically controlling routing of product lots and production inputs in said manufacturing production line based on a production scheduling model, wherein feedback data from said production line is provided to said manufacturing execution system;

a database for storing said model and said feedback data, wherein said feedback data is used to provide values for variables of said model; and

a simulating system for simulating operation of said production line according to said model, said simulating system using said feedback data from said database in performing said simulation, said simulating system further comprising a user interface through which changes to said model can be made;

wherein said manufacturing execution system monitors consumption of said production inputs and orders additional production inputs using electronic kanbans which are cycled in response to said feedback data.

An important feature of the claimed invention is the combination of a manufacturing execution system, which is controlling actual manufacturing, and a simulating system for simulating the operation of the production line, where both

the manufacturing execution system and the simulating system access a common database that is supplied with feedback data from actual operation of the production line. This cooperation between actual operation of the production line and simulation of the production line does not appear to be taught or suggested by the prior art of record.

Umeda teaches a "Simulation Method and Apparatus." Wiwakanond teaches "Simulation of electronics manufacturing systems with two-card kanban." Seppanen teaches a "Kanban Simulator Using Siman and Lotus 1-2-3." Corbett discusses "Modeling Just-In-Time Production Systems." All of these references appear to only address simulation systems, rather than a simulation system that is tied to an actual production system through a shared database that informs the simulations that are run.

Moreover, the Examiner has failed to indicate how or where the various elements of the claimed invention are taught or suggested by the applied prior art. It is incumbent upon the Examiner to identify where in the reference each element may be found. Ex parte Levy, 17 U.S.P.Q.2d 1461 (BPAI 1990). Consequently, when the Examiner fails to identify a claimed element, the Examiner has failed to establish a *prima facie* case of anticipation.

"A claim is anticipated [under 35 U.S.C. § 102] only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." Verdegaal Bros. v. Union Oil Co. of California, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987) (emphasis added). See M.P.E.P. § 2131. Consequently, the rejection of the claimed invention based on the four cited references appears to be improper. Therefore, the rejection should be reconsidered and appropriately explained or withdrawn.

Entry and consideration of this amendment are proper under 37 C.F.R. § 1.116 for at least the following reasons. The present amendment makes only those changes necessary to place previously dependent claims in condition for allowance as independent claims as suggested by the Examiner. The amendment does not raise new issues requiring further search or consideration. Therefore, entry and consideration of the present amendment is proper under 37 C.F.R. § 116 and is hereby requested.

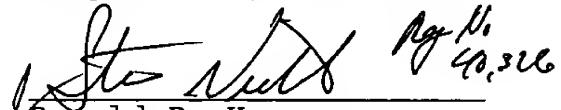
For the foregoing reasons, the present application is thought to be clearly in condition for allowance. Accordingly, favorable reconsideration of the application in light of these remarks is courteously solicited. If the Examiner has any comments or suggestions which could place

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this application in even better form, the Examiner is requested to telephone the undersigned attorney at the number listed below.

Respectfully submitted,


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